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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/803.697

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Emily H. Qi

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01/25/2008

INTEL CORPORATION
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EXAMINER

BEAMER, TEMICA M

ART UNIT

PAPER NUMBER

2617

MAIL DATE

DELIVERY MODE

01/25/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/803,697

Applicant(s)

QI ET AL.

Examiner

Temica M. Beamer

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-40 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-4, 14-17, 19, 23-28, 30, 32-34 and 40 are rejected under 35 U.S.C. 102(e) as being anticipated by Wentink, U.S. Patent Pub. No. 2004/0136339.

Regarding claims 1, 15, 26 and 33, Wentink discloses an apparatus/method/system comprising: Management Frames utilized in wireless communications associated with said apparatus; and said Management Frames being protection-capable or non-protection-capable and wherein said Management Frames indicate whether or not they are protection-capable (0059, 0069).

Regarding claims 2, 19 and 30, Wentink discloses wherein at least one of said Management Frames is an Action Frame in that the frames exchange network information) (0059).

Regarding claims 3, 16 and 27, Wentink discloses wherein said wireless communications further comprises a Robust Security Network (RSN) Capabilities bit to be added for Action Frame protection negotiation (0059, 0065, 0069).

Regarding claims 4, 17 and 28, Wentink discloses wherein said Action Frame protection negotiation is provided by a Beacon/Probe Response source setting said RSN bit to indicate that protection is required for all protection-capable Action Frames (0065, 0069).

Regarding claims 14 and 25, Wentink discloses the apparatus of claim 1, wherein said wireless communications is an 802.11 wireless LAN (0035).

Regarding claims 23, 32 and 40, Wentink discloses the method of claim 15, wherein said wireless communications is wireless communications between a pair of wireless stations (STA), one which might be an access point (AP) (0047, figure 2).

Regarding claim 24, Wentink discloses wherein said sourcing STA sets to 0 if said protected Management Frames are not supported/enabled; said sourcing STA sets to 1 if said protected Management Frames are supported and enabled; said STA sets to 0 if it doesn't support protected Management Frames; and said STA sets to value set by said AP if it supports protected Action Frames (0059, 0065).

Regarding claim 34, Wentink discloses wherein if it is desired not to protect Action Frames, then STAs shall send all Action Frames without protection, including all protection-capable Action Frames (0068, 0071, 0072).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 5-13, 18, 20-22, 29, 31 and 35-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wentink and well-known prior art.

Regarding claims 5-7, 10, 18, 20-22, 29 and 31, Wentink discloses the apparatus/method/systems of claims 3, 16 and 27 as described above. Wentink further discloses applying IEEE 802.11 protocols to the management frames in the network (0059, 0065). Wentink, however, fails to specifically disclose the IEEE 802.11i CCMP, TKIP, RC4 and Michael protocols as claimed.

The examiner contends, however, that such IEEE 802.11 protocols are very well-known in the art and the examiner takes official notice as such.

At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify Wentink with the teachings of well-known prior art for the purpose of enhancing protection to the system.

Regarding claim 8, Wentink as modified discloses wherein said apparatus is a pair of wireless stations (STA) (0047, figure 2).

Regarding claim 9, Wentink as modified discloses wherein at least one of said pair of wireless stations (STA) is an access point (AP) (0047; figure 2).

Regarding claim 11, Wentink as modified discloses wherein said apparatus is a pair of wireless stations (STA) ((0047; figure 2).

Regarding claim 12, Wentink as modified discloses wherein at least one of said wireless stations (STA) is an access point (AP) (0047; figure 2).

Regarding claim 13, Wentink as modified discloses wherein said STA sourcing Beacons and Probe Responses sets to 0 if said protected Action Frames are not supported/enabled; said STA sets to 1 if said protected Action Frames supported and enabled; said responding STA sets to 0 if it doesn't support protected Action Frames; and said responding STA sets to the value set by said sourcing STA if it supports protected Action Frames (0059, 0065).

Regarding claim 35, Wentink discloses wherein if it is desired to protect Action Frames, then a STA shall protect all protection-capable Action Frames, said protection provided by adding a Robust Security Network (RSN) Capabilities bit to said Action Frames for Action Frame protection negotiation, wherein if said RSN Capabilities bit is set to protection-capable (0059, 0065, 0069. Wentink further discloses applying IEEE 802.11 protocols to the management frames in the network (0059, 0065). Wentink, however, fails to specifically disclose the IEEE 802.11i CCMP, TKIP, RC4 and Michael protocols as claimed.

The examiner contends, however, that such IEEE 802.11 protocols are very well-known in the art and the examiner takes official notice as such.

At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify Wentink with the teachings of well-known prior art for the purpose of enhancing protection to the system.

Regarding claims 36 and 39, Wentink discloses the system of claim 33 as described above. Wentink, however, fails to disclose wherein said first STA shall not send protection-capable Action Frames at all if said second STA has not agreed to protection.

The examiner contends, however, that such a technique is well-known in the art and the examiner takes official as such.

At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify Wentink with the teachings of well-known prior art for the purpose of maintaining system security.

Regarding claims 37 and 38, Wentink discloses the system of claim 33 as described above. Wentink, however, fails to disclose wherein if the wireless communication requires protected Action Frames, then said first or said second STA shall discard any unprotected protection-capable Action Frame it receives.

The examiner contends, however, that such a technique is well-known in the art and the examiner takes official as such.

At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify Wentink with the teachings of well-known prior art for the purpose of maintaining system security.

Wentink further fails to disclose IEEE 802.11i 4-way Handshake. The examiner contends, however, that such IEEE 802.11 protocols are very well-known in the art and the examiner takes official notice as such.

At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify Wentink with the teachings of well-known prior art for the purpose of enhancing protection to the system.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Temica M. Beamer whose telephone number is (571) 272-7797. The examiner can normally be reached on Monday-Thursday (alternate Fridays) 9:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Appiah can be reached on (571) 272-7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

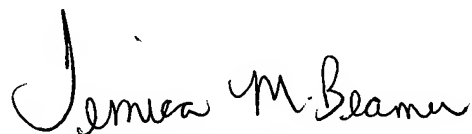
Application/Control Number:
10/803,697
Art Unit: 2617

Page 8

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Temica M. Beamer
Primary Examiner
Art Unit 2617

tmb

A handwritten signature in black ink that reads "Temica M. Beamer". The signature is written in a cursive, flowing style.

TEMICA BEAMER
PRIMARY EXAMINER